FIG. 1

```
yeast       MSTLIPPPSKKQKKEAQLPREVAIIPKDLPNVSIKFQALDTGDNVGGALRV
c.elegans   ----------------------------PQISVSEDENELG---GSGILV
fly         --------------------MQETDTEQEATPHTIQARLVYTGEEAGPPIDL
mouse       ----------------------EEAAAGD-VQRLLVQFQDEGGQLLGSPFDV
human       ------------------------------------------GSPFDV
frog        -------------------------MKEDVGRLLIQFKNENGEGLGTPFDV
                                                      *  :  :

yeast       EELLNQLNGTSDDPVPYTFSCTIQGKKASDPVKTIDITDNLYSSLIKPGYN
c.elegans   QILCNQLLGSR---FCLNNEFSVSG---------AEIVDSIRKSLEEIDFE
fly         GLICNALLKNE----EATPYLFFVGE--------DEIKKSLEDTLDLASVD
mouse       XLVCNALL-AQEEPLPLAFYVHD----------AEIVSSLGKTLESQSV-
human       QLVCNALL-AQEDPCPLAFFVHD----------AEIVSSLGKTLESQAV-
frog        QLVCNALL-QEEDPVPLAFFVQD----------LEIVTSLDKTLEKQSV-
              :  *  *                          :*   .:  .:*

yeast       YTPRAVFKVKPVTRSSSAIAGHGSTILCSAFAPHTSSRMVTGAGDNTARIW
c.elegans   YQPQAVFRVRPVTRCSASIPGHGEPVISAQFSPDGRG-LASGSGDQTMRIW
fly         YQPQAVFKVRPVTRCTSSMPGHAEAVVSLNFSPDGAH-LASGSGDTTVRLW
mouse       YQPQAVFRVRAVTRCTSS-------------------------------
human       -QPQXLFRVRAVTRCTS--------------------------------
frog        YQPQAVFKVRAVTRCTSSLEGHTEAVISVAFSPTGKY-LASGSGDTTVRFW
              *:  :*:*:.***.::

yeast       TLKGHYNWVLCVSWSPDGEVIATGSMDNTIRLWDPKSGQCLGDALRGHSKW
c.elegans   TCKSHKSWVLCIAWSPDATKIASACKNGEICIWNAKTGEQIGKTLKRHKQW
fly         TCTGHKQWVLCVSWAPDGKRLASGCKAGSIIIWDPETGQQKGRPLSGHKKH
mouse       ------------------------------------------------
human       ------------------------------------------------
frog        TSKGHTHWVLSIAWSPDGKKLASGCKNSQIFIWDPSTGKQIGKPLTGHSKW

yeast       LVKPGSKPRLASSSKDGTIKIWDTVSRVCQYTMSGHTNSVSCVKWGGQGLL
c.elegans   ----------------TVKMWR-----------ADDGVMCRNMTG----
fly         HRDPECR-KLASASGDGDCRIWDVKLGQCLMNIAGHTNAVTAVRWGGAGLI
mouse       ------------------------------------------------
human       ------------------------------------------------
frog        HLNPESRY-LASASKDCTIRIWDTVMGQCQKILTSHTQSVTAVKWGGDGLL

yeast       RVWDINSQGRCINILKSHAHWVNHLSLSTDYALRIGAFDHTGKK-----PS
c.elegans   ----------------HAHWINTLALNTDYALRTSCFE----------PS
fly         KMWR-AADGILCRTFSGHAHWVNNIALSTDYVLRTGPFHPVKDRSKSHLSL
mouse       ------------------------------------------------
human       ------------------------------------------------
frog        KAWR-AQDGVLCRTLQGHAHWVNTMALSTDYVLRKGAFNPADAS--VNPQD

yeast       LENYEKICKKNGNSEEMMVTASDDYTMFLWNPLKSTKPIARMTGHQKLVNH
c.elegans   ------------------------------------INRMTGHMQLVNQ
fly         LKRYQAVCP---DEVESLVSCSDDNTLYLWRN-NQNKCVERMTGHQNVVND
mouse       ------------------------------------------------
human       ------------------------------------------------
frog        EKALKRSNEVRGQGPERLVSGSEDFTLFLWAPAEEKKPLQRMTGHQALINE

yeast       IVSASFDNSIKLWDGRDGKFISTFRGHIASVYQVAWSSDCRLLVSCSKDTT
c.elegans   IASASFDKSVKLWCGRTGKYLASFRGHVGPVYQVAWSADSRLLVSGSADST
fly         IASASFDKSVRLWRASDGQYMATFRGHVQAVYTVAWSADSRLIVSGSKDST
mouse       ------------------------------------------------
human       ------------------------------------------------
frog        IASASFDKSIKLWDGKTGKFLTSLRGHVSAVYQIAWSADSRLLVSGSSDST

yeast       KLSVDLPGIKTKLY-VDWSVDGKRVCSGGKDKMVRLWTH
c.elegans   SLYYDLPGHGDEVFTVDWSPEGTKVVSGGKDKVLKLW--
fly         KLAQELPGHADEVFGVDWAPDGSRVASGGKDKVIKLWAY
mouse       ----------------------------------------
human       ----------------------------------------
frog        KLLIDLPGHADEVYSVDWSPDGQRVASGGKDKCLRIWRK
```

FIG. 2(A)

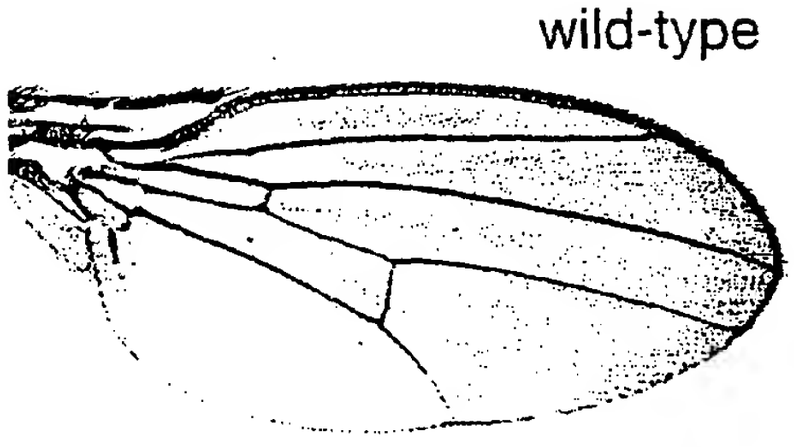

FIG. 2(B)

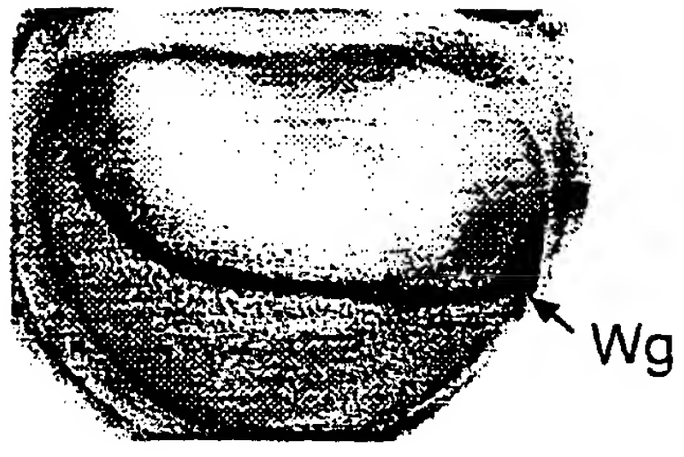

FIG. 2(C)

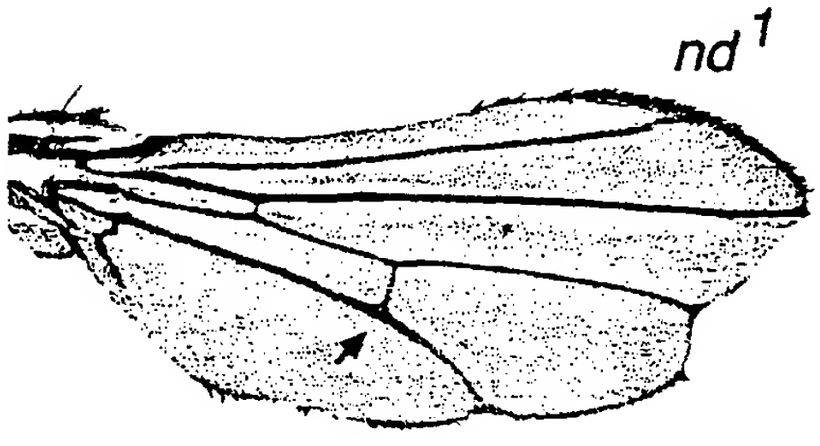

FIG. 2(D)

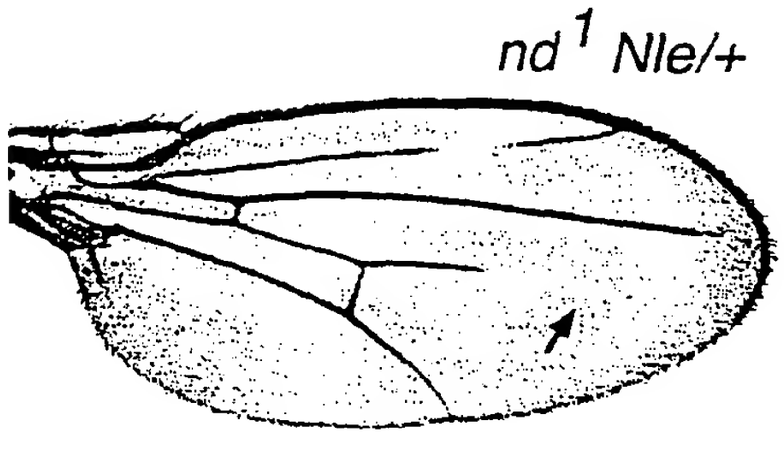

FIG. 2(E)

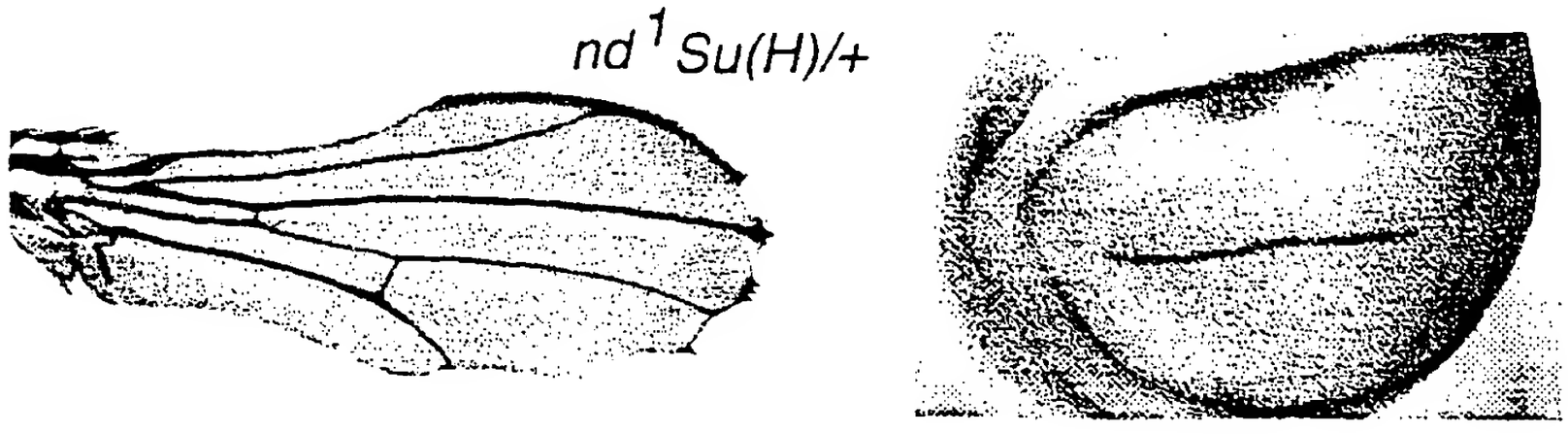

FIG. 2(F)

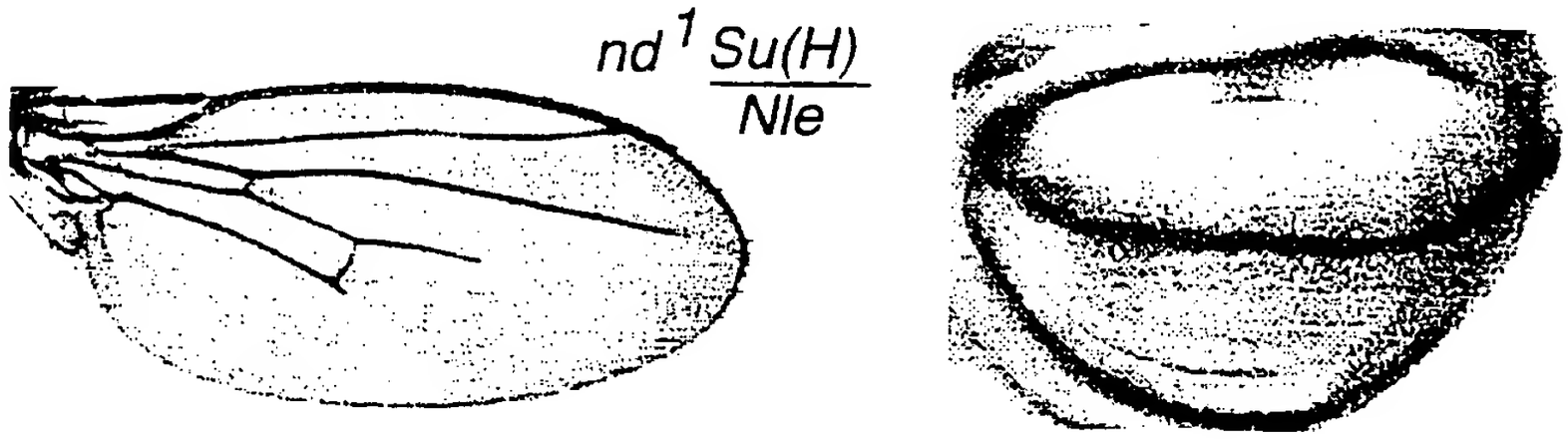

FIG. 2(G)

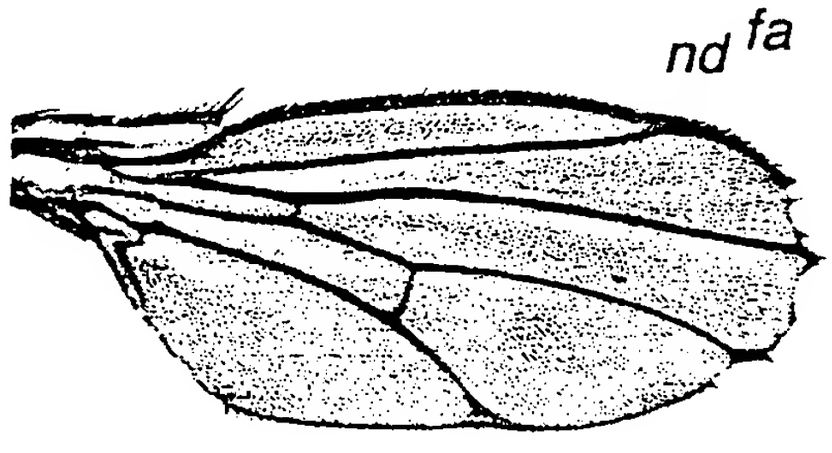

FIG. 2(H)

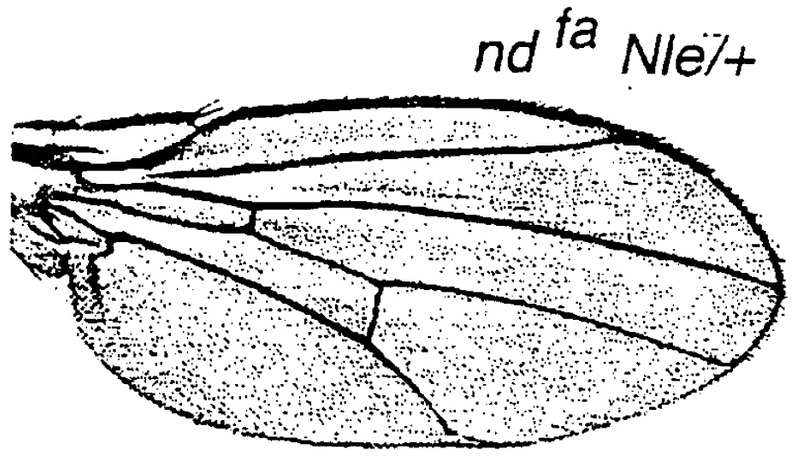

FIG. 3(A)

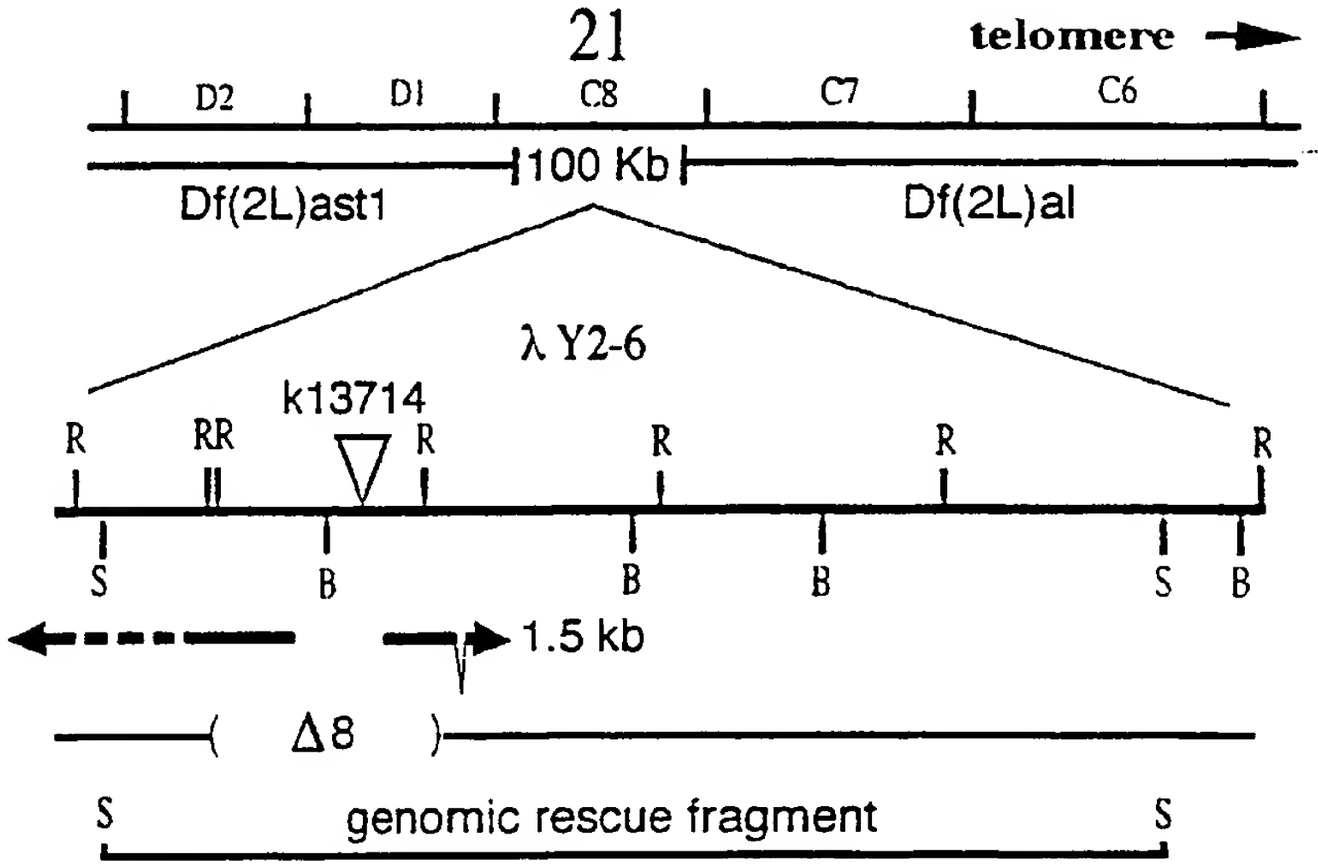

FIG. 3(B)

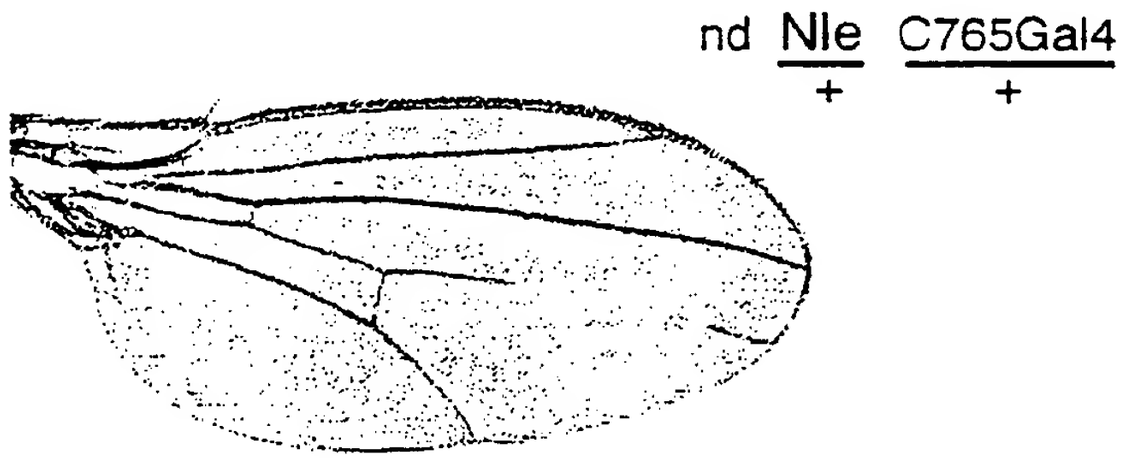

FIG. 3(C)

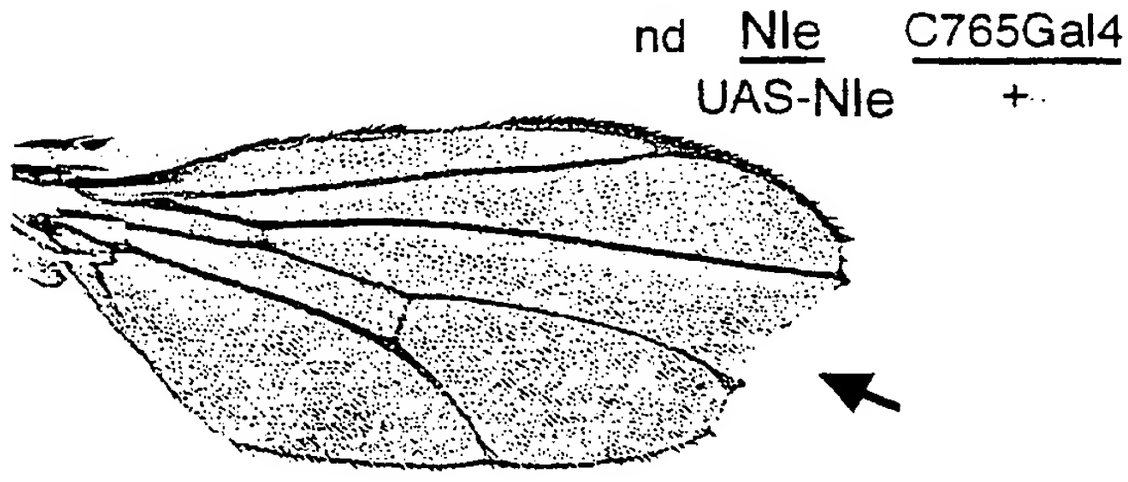

FIG. 4(A)

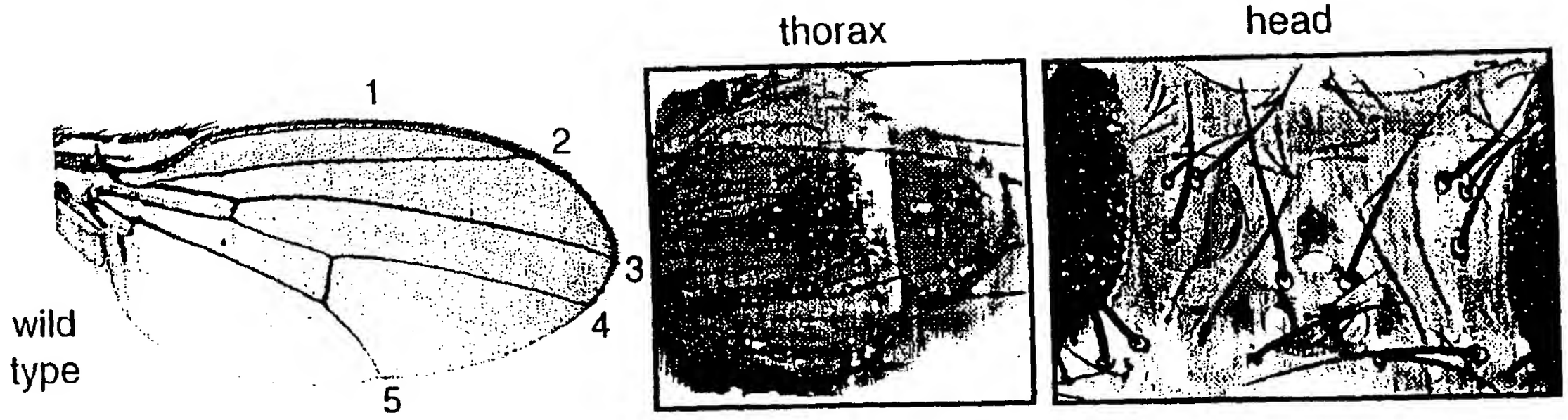

FIG. 4(B)

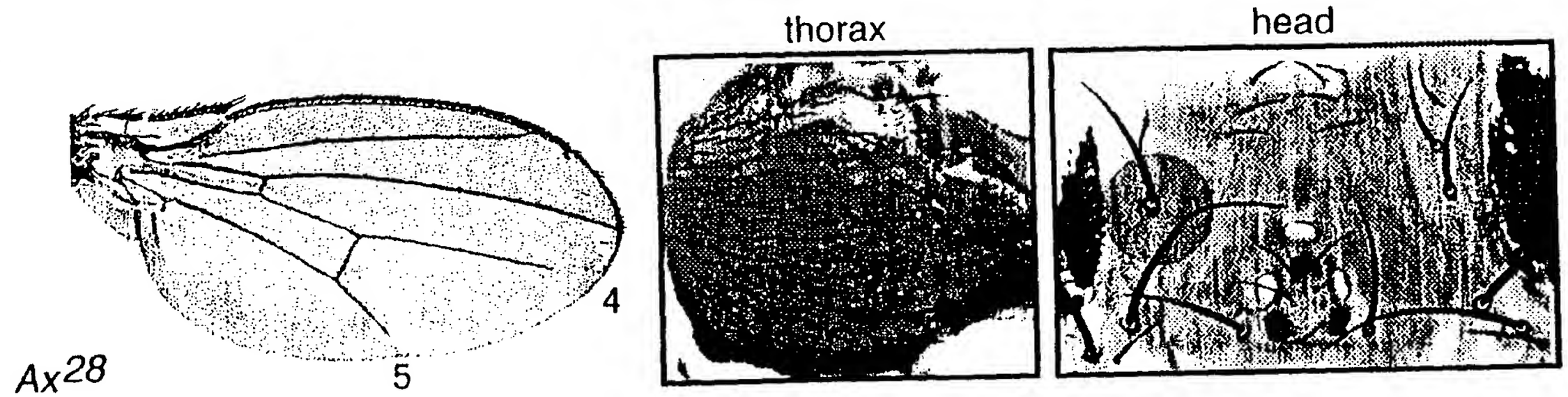

FIG. 4(C)

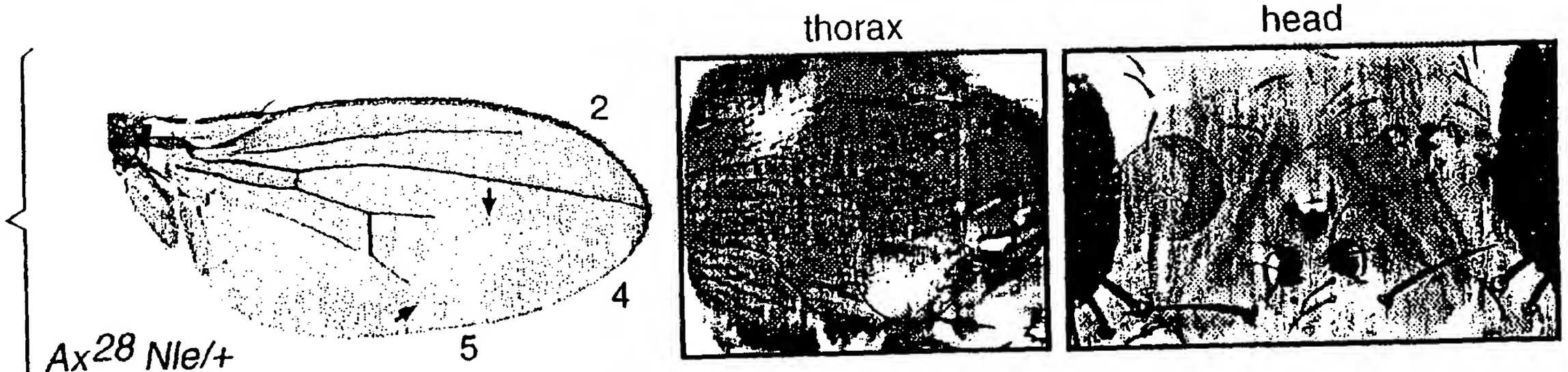

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FIG. 5(A)

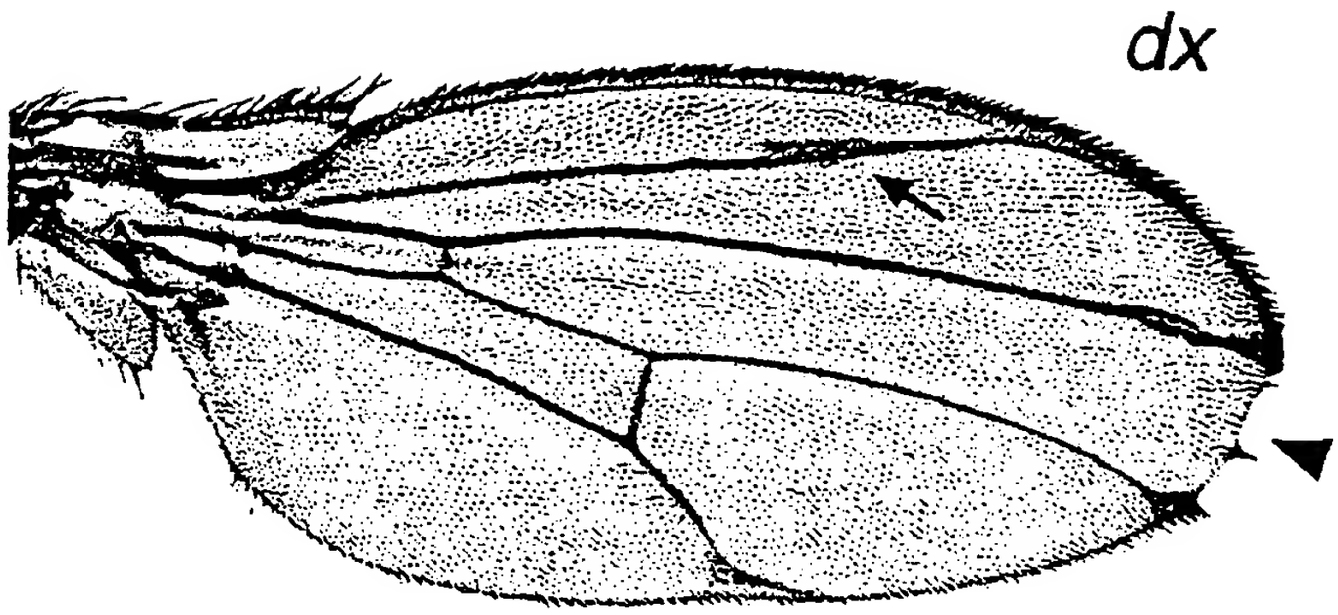


FIG. 5(B)

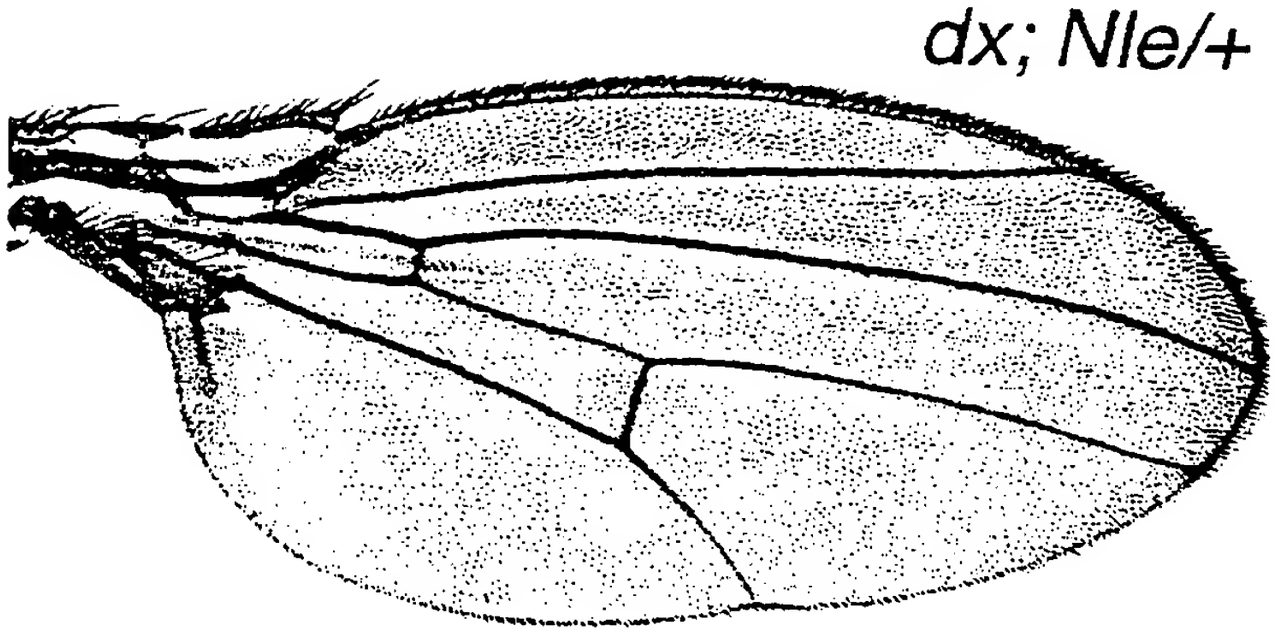


FIG. 5(C)

HS-dx

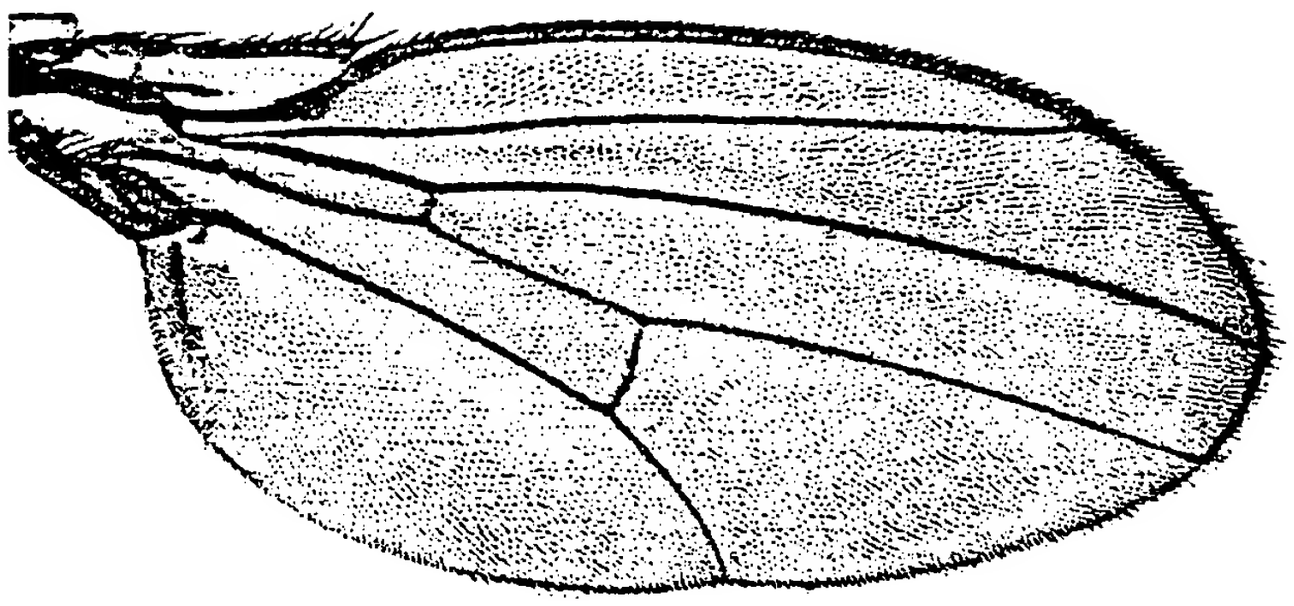
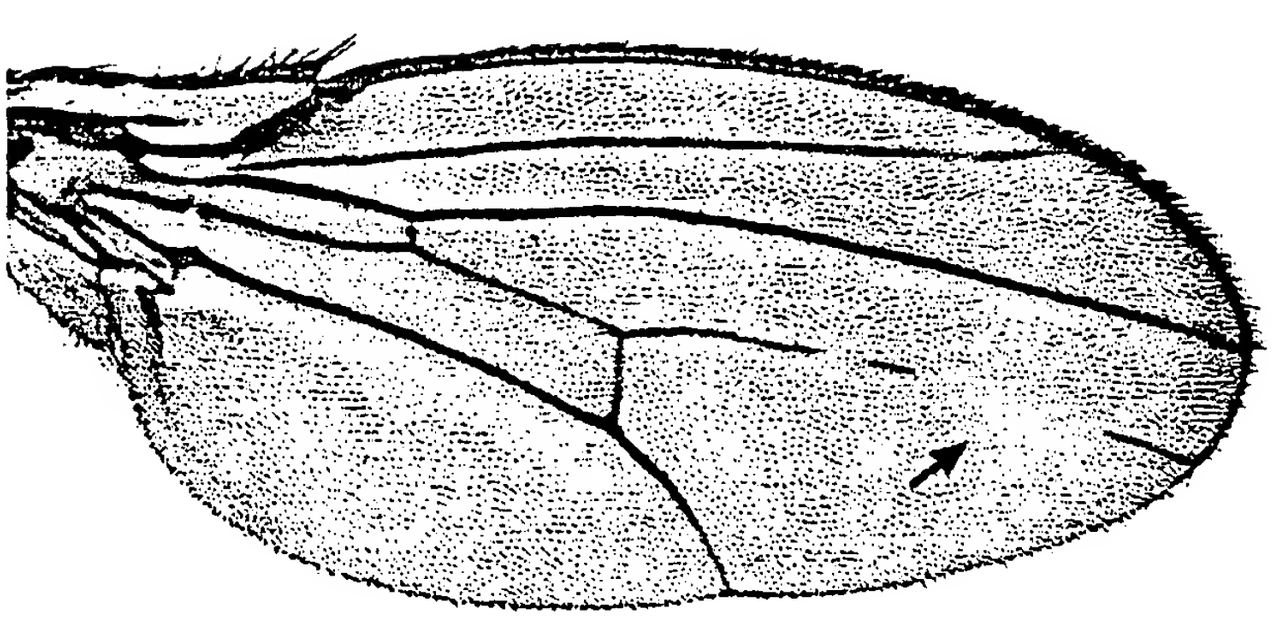
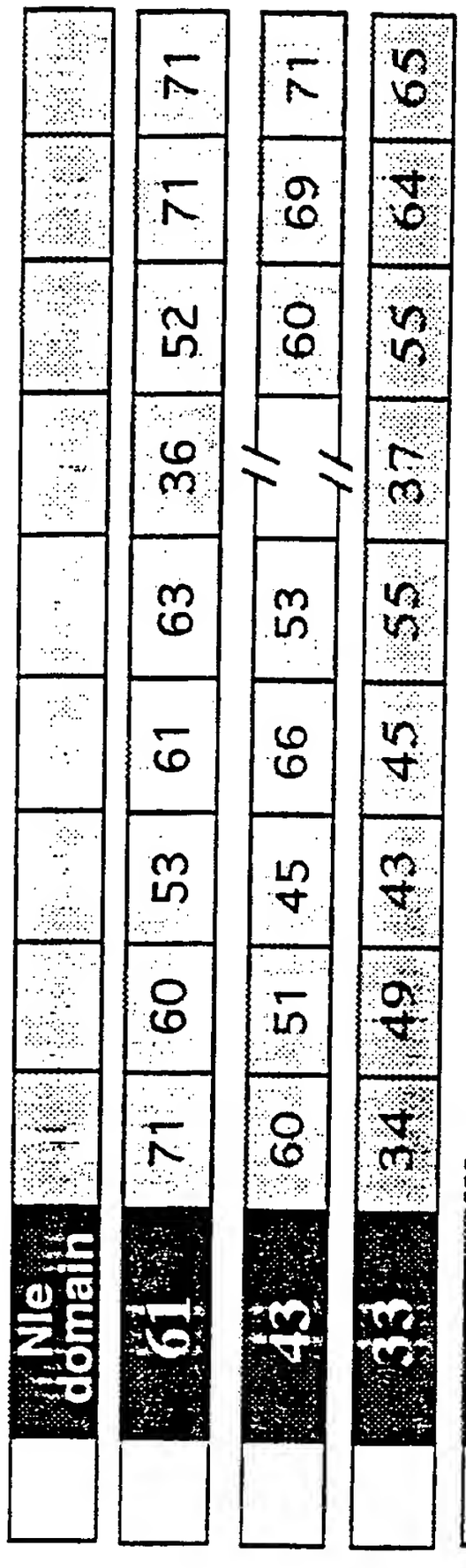


FIG. 5(D)

HS-dx; Nle/+

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66
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49
43
45
Drosophila
Xenopus
C.elegans
S.cerevisiae
mouse
human

FIG. 6(A)

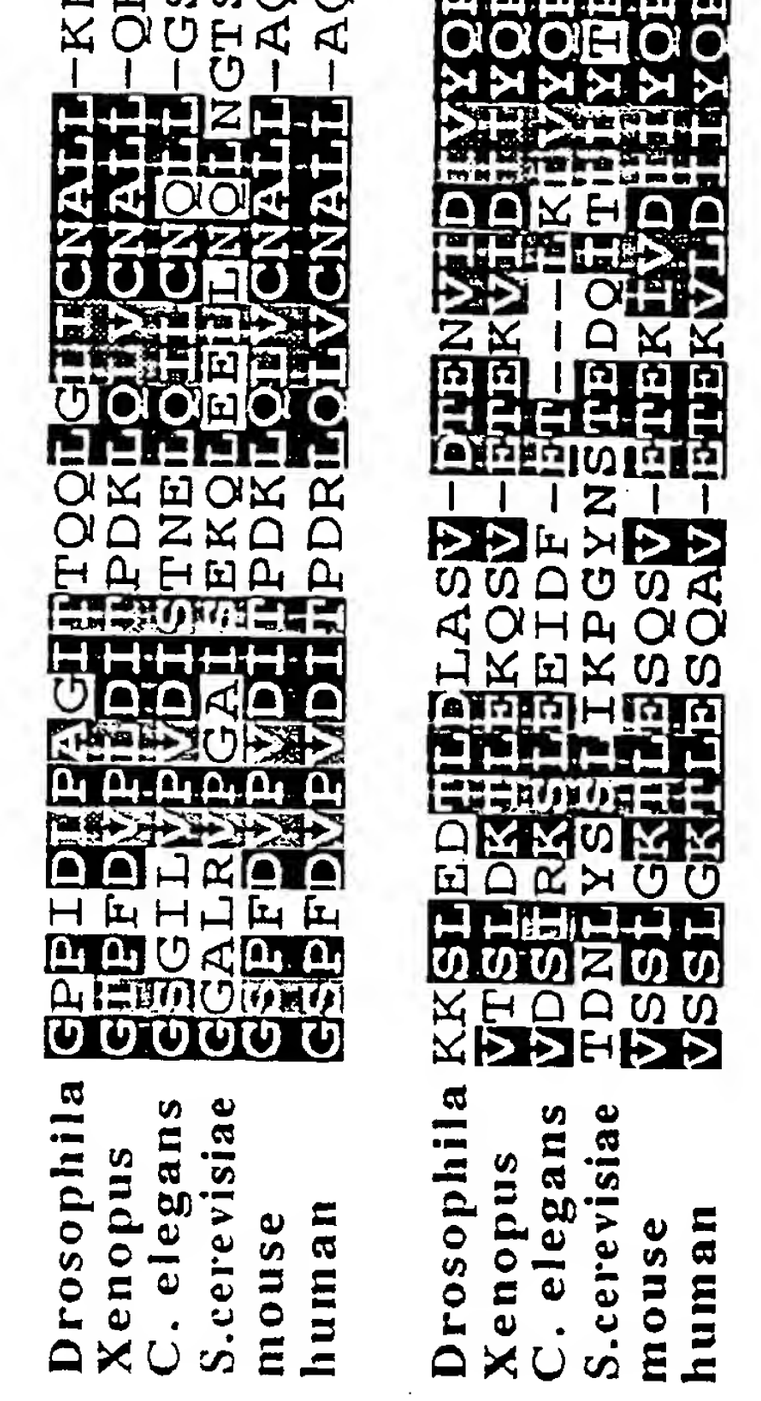
Drosophila
Xenopus
C. elegans
S.cerevisiae
mouse
human

FIG. 6(B)

FIG. 7(A)

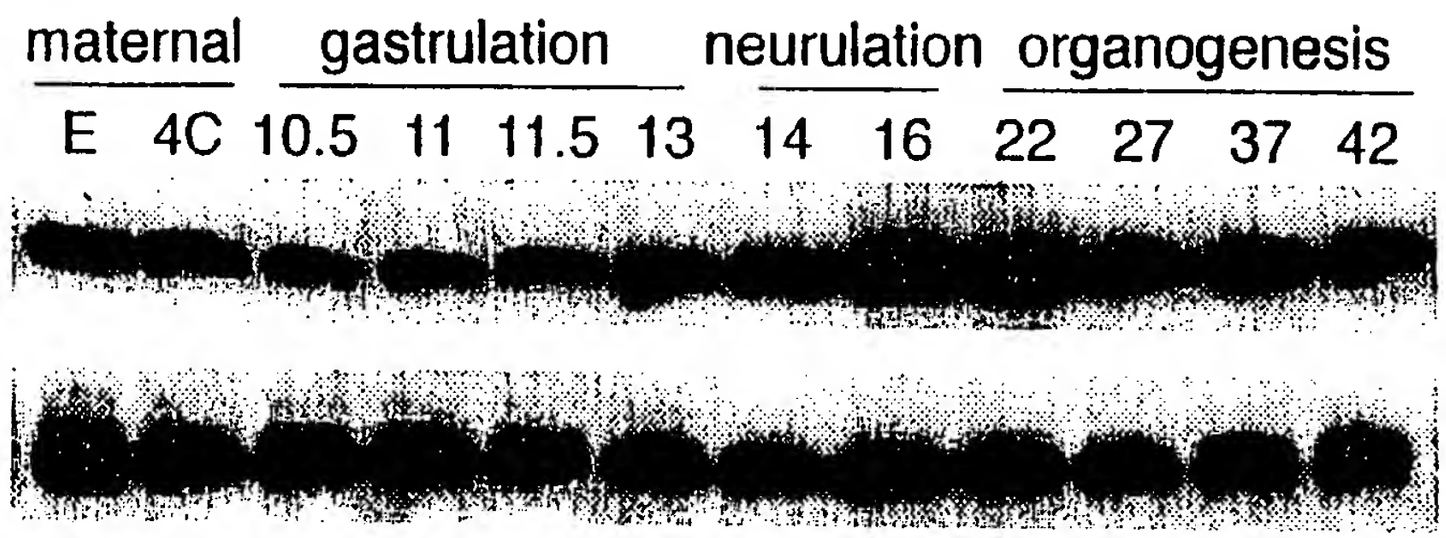

FIG. 7(B)

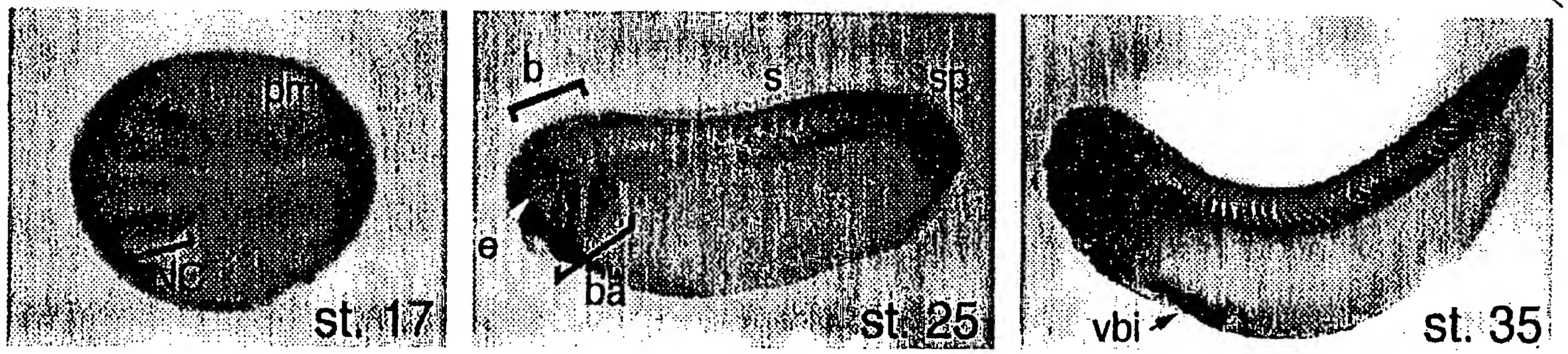

FIG. 7(C)

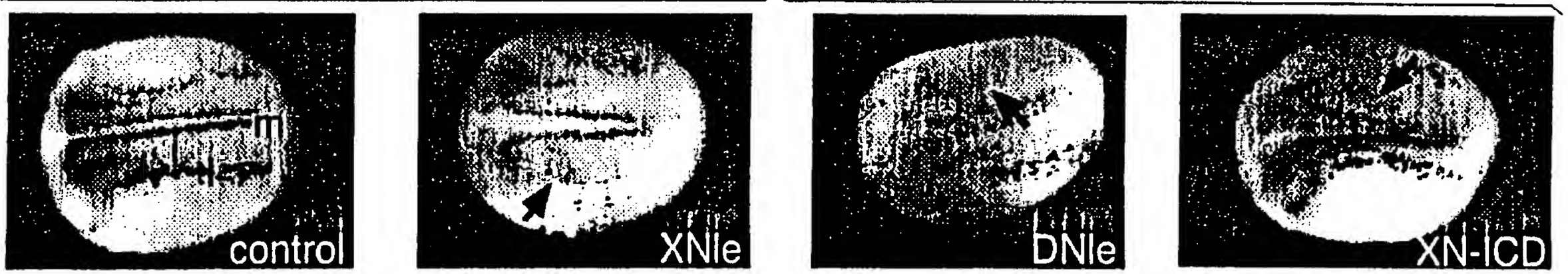

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FIG. 8(A)

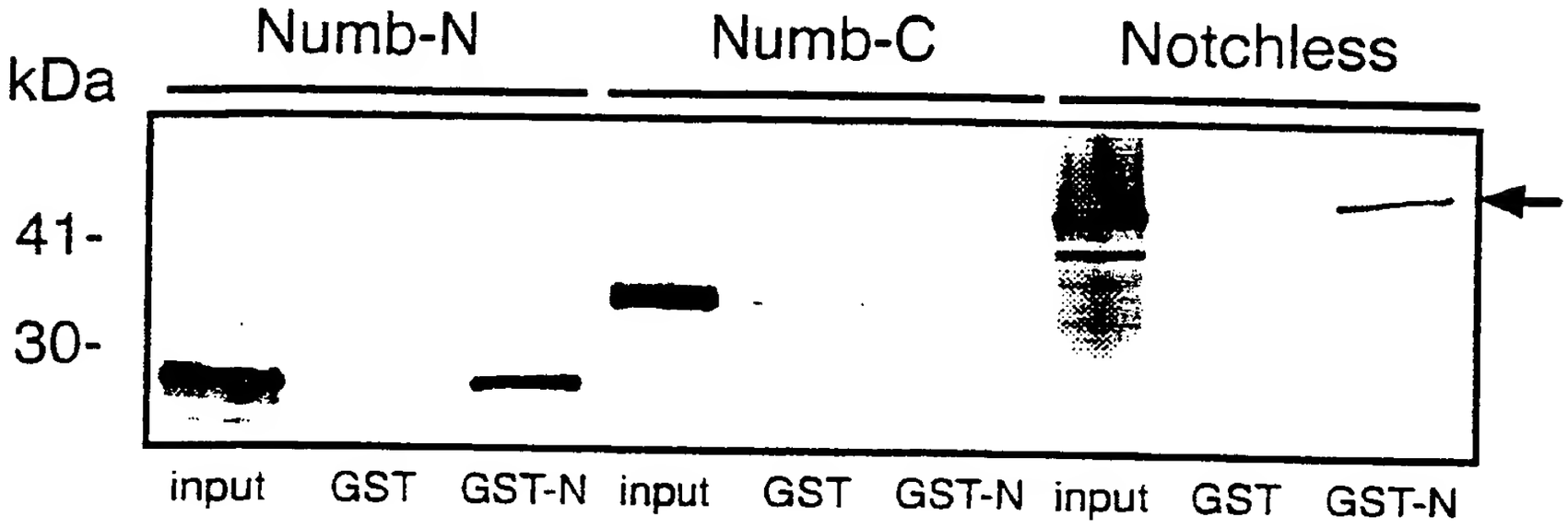
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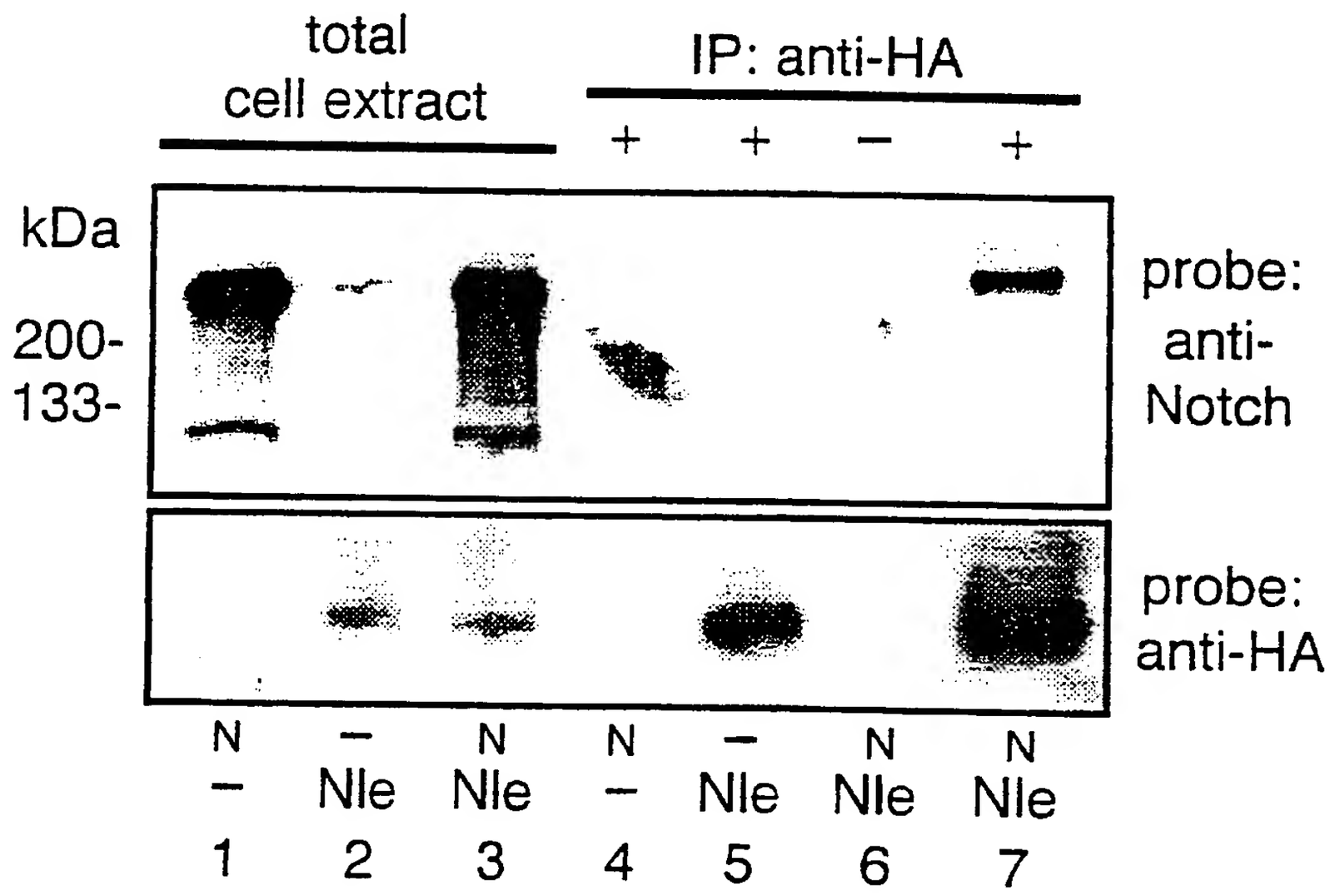
FIG. 8(B)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7